



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,883	06/25/2003	Bruce Alan Fette	2284-090	5420
7590 Lowell W. Gresham Meschkow & Gresham, PLC 5727 North 7th Street, Suite 409 Phoenix, AZ 85014	02/07/2008		EXAMINER DUONG, DUC T	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 02/07/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,883	FETTE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Duc T. Duong	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 25 June 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4, 16, 18, 19, 32, 34, 36 and 45 is/are rejected.
- 7) Claim(s) 5-15, 17, 20-31, 33, 37-44 and 46 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 6/25/03.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 16, and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Pasternak et al (US Patent 5,648,969).

Regarding to claims 1 and 34, Pasternak discloses a method of operating a wireless network of nodes 50, said nodes including receiver nodes 50 and a user node 53 (fig. 5 col. 4 lines 64-67), said method comprising for each of said nodes, defining a narrowband channel 52 for extra-network communication (col. 5 lines 2-4); establishing a wideband backbone 51 for intra-network communication between said nodes (col. 5 lines 1-2); engaging in communication over said narrowband channel at said receiver nodes to carry a signal between said receiver nodes and an extra-network location (col. 5 lines 5-7); and communicating said signal as distinct bitstreams between said receiver nodes and said user node using said wideband backbone (col. 5 lines 7-14 and col. 3 lines 30-59; noted the POP 53 includes RU/TU that identify the different type of services (distinct bitstreams) communicating with other nodes 50).

Regarding to claim 16, Pasternak discloses of receiving said bitstreams at said receiver nodes from said user node over said wideband backbone and transmitting said

distinct bitstreams as said signal from each of said receiver nodes toward said extra-network location (fig. 5 col. 4 line 65-col. 5 line 15).

Regarding to claim 35, Pasternak discloses control processing section extracts said signal from an information spectrum received at said first transceiver over said narrowband channel, and converts said signal to said distinct bitstream for forwarding over said wideband backbone (fig. 6 col. 5 lines 16-46).

Regarding to claim 36, Pasternak discloses quantized (90a-d) distinct bitstream prior to forwarding over said wideband (fig. 9 col. 6 lines 11-14).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 18, 19, 32, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pasternak in view of Elliot et al (US Patent 7,120,456 B1).

Regarding to claims 2-4, Pasternak discloses all the limitations with respect to claim 1, except for utilizing ultra wideband to establish backbone communication and selecting a radio frequency RF capability, chosen from a group of disparate RF capabilities, that defines a narrowband channel. However, Elliot discloses a wireless network 100 utilizing ultra wideband for backbone communication and a group of disparate RF capabilities for narrowband communication (fig. 1 col. 5 lines 18-34).

Thus, it would have been obvious to a person of ordinary skill in the art to employ the communication scheme as taught by Elliot into Pasternak's system to provide the network with the flexibility and future expandability to operate at different frequency ranges.

Regarding to claims 18 and 19, Pasternak discloses a method of operating a wireless network of nodes 50, said nodes including receiver nodes 50 and a user node 53 (fig. 5 col. 4 lines 64-67), said method comprising for each of said nodes selecting a RF capability (fig. 4; data rate < 10Mbps) defining a narrowband channel 52 for extra-network communication (col. 5 lines 2-4); establishing a wideband backbone 51 for intra-network communication between said nodes (col. 5 lines 1-2); engaging in communication over said narrowband channel at said receiver nodes to carry a signal between said receiver nodes and an extra-network location (col. 5 lines 5-7); and communicating said signal as distinct bitstreams between said receiver nodes and said user node using said wideband backbone (col. 5 lines 7-14 and col. 3 lines 30-59; noted the POP 53 includes RU/TU that identify the different type of services (distinct bitstreams) communicating with other nodes 50).

Pastrank fails to teach for each node having a second RF capability for narrowband communication.

However, Elliot discloses a wireless network 100 comprising a plurality of nodes 110/120 using different RF capability, selects from a group of disparate RF capabilities, for narrowband communication (fig. 1 col. 5 lines 18-34).

Thus, it would have been obvious to a person of ordinary skill in the art to employ the communication scheme as taught by Elliot into Pasternak's system to provide the network with the flexibility and future expandability to operate at different frequency ranges.

Regarding to claim 32, Pasternak discloses receiving said bitstream at said second node 50a-h from said first node 53 over said wideband backbone 51 and transmitting said distinct bitstream as said signal from said second node toward said extra-network location (side node), see fig. 5 col. 4 line 65-col. 5 line 15).

Regarding to claim 45, Pasternak discloses a wireless network comprising a first nodes (side node) configured for extra-network communication over a first narrowband channel 52 utilizing a first radio frequency RF capability (fig. 4-5 col. 2-4), a second node 50 for intra-network communication utilizing wideband backbone 51 (fig. 5 col. 5 lines 1-2), wherein a first signal received at said first node over said first narrowband channel is forwarded to said second node over said wideband backbone as a first bitstream and a second signal received at said second node over said second narrowband channel is forwarded to said first node over said wideband backbone as a second bitstream (fig. 5 col. 5 lines 1-15; noted the communication between the nodes 50 and the side node are bi-directional, thus communication from node 50 to side node will be first stream and vice versa communication from side node to first node 50 will be second stream).

Pastrank fails to teach for each node having a second RF capability for narrowband communication.

However, Elliot discloses a wireless network 100 comprising a plurality of nodes 110/120 using different RF capability, selects from a group of disparate RF capabilities, for narrowband communication (fig. 1 col. 5 lines 18-34).

Thus, it would have been obvious to a person of ordinary skill in the art to employ the communication scheme as taught by Elliot into Pasternak's system to provide the network with the flexibility and future expandability to operate at different frequency ranges.

***Allowable Subject Matter***

5. Claims 5-15, 17, 20-31, 33, 37-44, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Application/Control Number:  
10/606,883  
Art Unit: 2619

Page 7

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD  
DD



2/14/08

WING CHAN  
SUPERVISORY PATENT EXAMINER